

Response Under 37 C.F.R. §1.116 - Expedited Examining Procedure

Page 2 of 5

Serial No.: 09/942,200

Confirmation No.: 8194

Filed: 29 August 2001

For: DIFFUSION BARRIER LAYERS AND METHODS OF FORMING SAME**Remarks**

The Office Action of August 31, 2004 has been received and reviewed. With no claims having been amended, added, or canceled, the pending claims remain claims 23-39 and 41-49. Reconsideration and withdrawal of the rejections are respectfully requested for at least the reasons set forth below.

The 35 U.S.C. §112, First Paragraph, Rejection

Claims 23-39 and 41-48 were rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Specifically, the Office Action asserts that, with regard to claims 23, 27, 30, 32-34, and 37, "the term 'platinum(x): ruthenium' is not supported by the originally filed disclosure and hence is deemed to be new matter," (*Office Action*, page 2). Claims 24-26, 28-29, 31, 35-36, 38-39, and 41-48 were similarly rejected due to their dependence on their respective base claims. Applicant traverses this rejection for at least the following reasons.

Contrary to the assertions of the Office Action, the originally filed disclosure clearly supports the recitations of the rejected claims, e.g., supports the recitation "platinum(x): ruthenium." For example, Figures 6A and 6B illustrate depth profiles of a "co-deposited platinum:ruthenium layer" (*Specification*, page 17, line 13) both before anneal (Figure 6A) and after anneal (Figure 6B). As clearly illustrated in these figures, other elements (e.g., Si, O) are present over a wide range of depths. Moreover, the specification, in discussing these figures, states that at a depth of 200 Å, the layer has "a platinum composition of about 70% and a ruthenium composition of about 15%," (page 17, lines 14-15). Thus, other elements may be present in the layer, i.e., the composition of the claimed layer may be recited as "platinum (x):ruthenium" as in the rejected claims.

The general description of the layer elsewhere in the application also corresponds to the recited claim language (see, e.g., "platinum:ruthenium diffusion barrier layer" (page 3, line 12);

Response Under 37 C.F.R. §1.116 - Expedited Examining Procedure

Page 3 of 5

Serial No.: 09/942,200

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"platinum:ruthenium alloy" (page 4, lines 1-2); "platinum:ruthenium alloy layer" (page 5, lines 5, 7, 10, 12, 14, 18, 19 and 28)).

"An objective standard for determining compliance with the written description requirement is, 'does the description clearly allow persons of ordinary skill in the art to recognize that he or she invented what is claimed.' " M.P.E.P. § 2163.02 citing *In re Gosteli*, 872 F.2d 1008, 1012, 10 USPQ2d 1614, 1618 (Fed. Cir. 1989). As evident from the remarks provided above, the description clearly illustrates that the Applicant had possession of the invention as claimed.

For at least the reasons set forth above, Applicant respectfully requests reconsideration and withdrawal of the rejection.

- Previously Filed Declaration Under 37 C.F.R. § 1.131

In view of the support for the pending claims provided in the originally filed application, Applicant requests reconsideration of the previously-filed Declaration Under 37 C.F.R. § 1.131 (the "Declaration"). In particular, Applicant requests consideration of the Declaration in view of the currently pending claims, e.g., in view of the claims reciting "platinum(x):ruthenium." It is submitted that the Declaration is clearly sufficient to establish reduction to practice of the claimed invention prior to the critical date of Dornfest et al.

In the event the Office reasserts that the Declaration is insufficient to antedate Dornfest et al., it is requested that the next Official Communication recite, with specificity, the reasons why the Declaration is deficient in view of the pending claims, not in view of the claims prior to the amendment filed March 29, 2004.

The 35 U.S.C. §§102 and 103 Rejections

Claims 23-24, 26-39, and 41-48 were rejected under 35 U.S.C. § 102(e) as being anticipated by Dornfest et al. (U.S. Patent No. 6,358,810). Further, claims 25 and 49 were rejected under 35 U.S.C. §103(a) as being unpatentable over Dornfest et al.

Response Under 37 C.F.R. §1.116 - Expedited Examining Procedure

Page 4 of 5

Serial No.: 09/942,200

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While Applicant does not agree with the substance of the rejection, the rejection is rendered moot by the Declaration previously filed, which includes evidence that Applicant reduced the claimed invention to practice prior to the effective date of Dornfest et al. As a result, Applicant submits that Dornfest et al. is not a valid prior art document under 35 U.S.C. §102(e)/§103(a).

Reconsideration and withdrawal of the rejection are, therefore, requested.

Comments on Examiner's "Response To Amendment"

The Office Action states that, although the Declaration was considered, it was deemed "ineffective to overcome the Dornfest et al. reference." *Office Action*, page 7. In reaching this conclusion, the Examiner appears to associate the evidence provided in the Declaration with the claims as they existed prior to March 29, 2004. Applicant submits that the Declaration needs to be considered in light of the amended claims and requests such consideration at this time.

Response Under 37 C.F.R. §1.116 - Expedited Examining Procedure

Page 5 of 5

Serial No.: 09/942,200

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It is submitted that the pending claims are in condition for allowance and notification to that effect is requested. The Examiner is invited to contact Applicant's Representatives, at the below-listed telephone number, if it is believed that prosecution of this application may be assisted thereby.

Respectfully submitted for
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1 Nov. 2004

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CERTIFICATE UNDER 37 CFR §1.8:

The undersigned hereby certifies that this paper is being transmitted by facsimile in accordance with 37 CFR §1.6(d) to the Patent and Trademark Office, addressed to **Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450**, on this 1st day of November, 2004, at 10:34 am (Central Time).

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